

Case study

BQuant simplifies large-scale data processing, analysis, and visualization

A company promoting innovation

Sumitomo Life Insurance's Special Account Investment Department wins the Most Popular App award.

On February 21, 2020, the second BQuant Hackathon for insurance companies was held at the Bloomberg office in Marunouchi, Tokyo. The objective was to solve asset-management issues faced by each company using Bquant applications – Bloomberg's next-generation quantitative analytical platform. The 11 teams of 28 people from seven insurance companies across Japan presented and discussed their ideas and app development capabilities.

Participants cast their votes for the Most Popular App, which was won by a team from Sumitomo Life Insurance's Special Account Investment Department.

Portfolio managers have to make better and timely asset allocation decisions. The Sumitomo Life Insurance team developed three tools to support this process. We were fortunate to have a chance to ask them about the hackathon and what changes they experienced following the event.

[Click here to see our event report for the second BQuant Hackathon.](#)

What kind of app did you create and what problems did it solve?

We created an app with three functions. The first is a tool to analyze Japanese companies' financials. Since TOPIX consists of more than 2,000 stocks, extracting each company's financial data for each period in Excel placed a huge burden on the system. With BQuant, we are able to request and populate the entire dataset for all securities simultaneously. The second feature is a Lasso regression model, which can't be done in Excel. Lasso regression automatically chooses highly correlated variables. Given the period, cycle, explanatory variables, and a dependent variable, Lasso generates results like "a high correlation between the S&P stock index and the U.S. two-year treasury yield" and the app displays the results as a graph. This information helps portfolio managers to consider factors they should look at. The third feature is a Correlation Heatmap. The heatmap visualizes highly correlated asset classes within the current portfolio. Users can customize focus assets and heat map parameters.

What did you gain from the hackathon?

By seeing other teams' BQuant apps, we were able to learn issues they were working on. That helped us broaden our insights. In addition, we were able to present that BQuant enabled us to develop apps that are easy to understand for users with limited IT background.

What do you think is particularly effective about BQuant and the way it operates?

BQuant is extremely convenient because it has a quick access to Bloomberg's huge database and processing / visualization capabilities. It also provides advanced statistical methods through various Python libraries. Another strength is that new apps are easy to use once published.

Did you feel any change in awareness within your company after the hackathon?

With BQuant, anyone can quickly create an easy-to-use app for high-speed analysis with an intuitive interface, even without specialized training in programming or system development. Our managers who participated in the hackathon understood the benefits as well.

“If you don’t try, you’ll never see what’s out there – so give it a shot!”

Special interview with Iwao Matsumoto, Managing Executive Officer

What are your thoughts on introducing technology to enhance asset management capabilities? How can BQuant and the hackathon help with that?

Matsumoto: A big wave of digitalization is affecting not just the insurance business but the asset management business as well. As low interest rates continue globally, insurers, banks, and asset management companies have to manage investment risks better to generate profits in order to survive. They have to analyze larger amounts of data faster. In asset management, information technologies to monitor portfolios, manage risks, and to test investment ideas, are becoming one of their most vital capabilities.

BQuant is the perfect infrastructure for that. With BQuant, we are able to create significant values by processing and analyzing the Bloomberg data – including stock prices, FX, interest rates, company fundamentals, and environmental data including climate change.

Before we started to use BQuant, we implemented AIM to streamline post-trade operations and PORT+ to better analyze and manage portfolios. Then I listened to a BQuant presentation from Bloomberg, I felt that BQuant also could create synergies between the huge amounts of Bloomberg data and new analytics, so we made a big pivot towards promoting it.

What kind of discussions took place within your company about promoting new technologies like BQuant? In addition, what is the appeal of a hackathon for you?

Matsumoto: Employees realized they could develop more advanced portfolio and investment analytics by using Python and the big data. Also, each group had the opportunity to present their applications, which motivated them more. The hackathon has dramatically increased enthusiasm for BQuant right across the company.

Each fund manager has their own investment methodologies; they would like to look at different data items and to analyze them in different ways. If we can’t find the right off-the-shelf applications, then we have to develop them, which can be expensive and time consuming. BQuant offers an environment to develop and put together applications easily without reaching out to the IT Department or an external systems vendor. Someday we hope to apply AI technology to it as well.

Many of your asset management staff participated in this hackathon, and a lot of resources were spent on creating apps and managing the event. How do you make the decision to embark on something like that?

Matsumoto: Through hackathon, employees recognize that they could use Python to analyze the big data involved in asset management. In addition, each group having the opportunity to present the specifics of their applications motivated them more. The hackathon has dramatically increased enthusiasm for BQuant right across the company.

People gain skills by doing, not just by listening to lectures. Developing an app would be time consuming since those with no programming experience would have to learn from scratch. Nonetheless I encouraged them saying, “If you don’t try, you’ll never see what’s out there – so give it a shot.” Once we decided to do it, each team brainstormed what application to create, and held lively discussions for their presentation. Ideas came pouring out, and the applications were incredibly innovative. Even after the hackathon, they are still coming up with ideas for new applications. Seeing such changes, I’m confident that we’re on the right track to improving our asset management capabilities.

Driving forces like this are crucial to create innovations within our organization. A lot of effort were required to make the hackathon happen, but the benefit goes far beyond the investment – advancing the application of IT. We intend to participate in future hackathon events and continue to build on the momentum for IT utilization in the Asset Management Division.

What is your outlook on enhancing asset management capabilities?

Matsumoto: I would like to share our expertise within our company and emphasize that anyone can easily use BQuant – and make it the go-to infrastructure for creating applications. To do that, we also need to enhance our skill set while allowing junior staff in the Asset Management Department to learn how to use BQuant and Python.

A Short Bio of

Iwao Matsumoto Managing Executive Officer

After working as manager of the Fixed Income Investment Department, manager of the Management and Planning Department, and senior executive officer, he was promoted to the position of managing executive officer in July of 2018.

Take the next step.

For additional information,
press the <HELP> key twice
on the Bloomberg Terminal®.

Beijing
+86 10 6649 7500

Dubai
+971 4 364 1000

Frankfurt
+49 69 9204 1210

Hong Kong
+852 2977 6000

London
+44 20 7330 7500

Mumbai
+91 22 6120 3600

New York
+1 212 318 2000

San Francisco
+1 415 912 2960

São Paulo
+55 11 2395 9000

Singapore
+65 6212 1000

Sydney
+61 2 9777 8600

Tokyo
+81 3 4565 8900

[bloomberg.com/professional](https://www.bloomberg.com/professional)

The data included in these materials are for illustrative purposes only. The BLOOMBERG TERMINAL service and Bloomberg data products (the "Services") are owned and distributed by Bloomberg Finance L.P. ("BFLP") except (i) in Argentina, Australia and certain jurisdictions in the Pacific Islands, Bermuda, China, India, Japan, Korea and New Zealand, where Bloomberg L.P. and its subsidiaries ("BLP") distribute these products, and (ii) in Singapore and the jurisdictions serviced by Bloomberg's Singapore office, where a subsidiary of BFLP distributes these products. BLP provides BFLP and its subsidiaries with global marketing and operational support and service. Certain features, functions, products and services are available only to sophisticated investors and only where permitted. BFLP, BLP and their affiliates do not guarantee the accuracy of prices or other information in the Services. Nothing in the Services shall constitute or be construed as an offering of financial instruments by BFLP, BLP or their affiliates, or as investment advice or recommendations by BFLP, BLP or their affiliates of an investment strategy or whether or not to "buy", "sell" or "hold" an investment. Information available via the Services should not be considered as information sufficient upon which to base an investment decision. The following are trademarks and service marks of BFLP, a Delaware limited partnership, or its subsidiaries: BLOOMBERG, BLOOMBERG ANYWHERE, BLOOMBERG MARKETS, BLOOMBERG NEWS, BLOOMBERG PROFESSIONAL, BLOOMBERG TERMINAL and BLOOMBERG.COM. Absence of any trademark or service mark from this list does not waive Bloomberg's intellectual property rights in that name, mark or logo. All rights reserved. ©2020 Bloomberg. 803246 DIG 0620